

Technical Bulletin



Bulletin No: TCH-001-058

Effective Date: 5-20-2010

Cancels: N/A

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Subject: **Sound Emitted by Externally Unloaded Compressor**

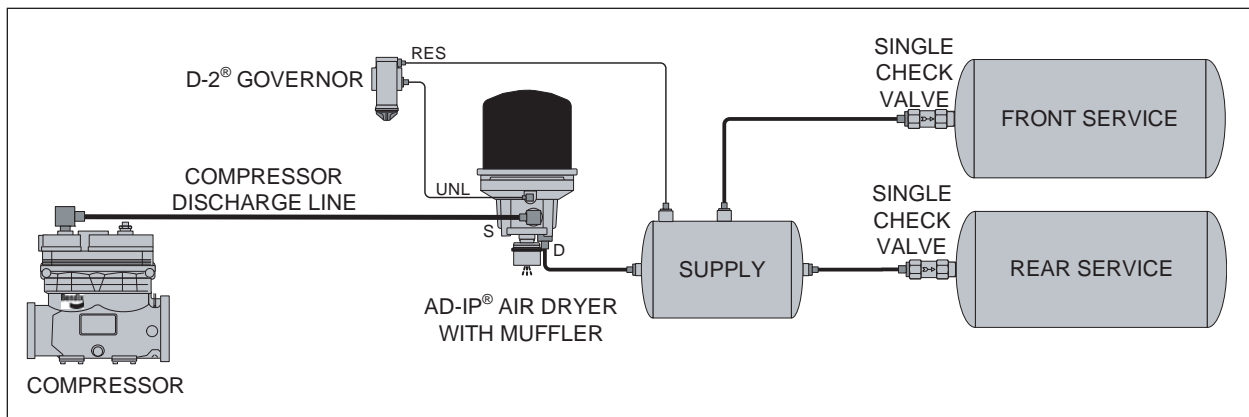
This bulletin identifies a concern that can be mistakenly diagnosed as air system leakage.

Unloading air compressors externally, by means of allowing discharge air to be vented to atmosphere rather than internally unloading the compressor, to stop the building of air system pressure is commonly referred to as Discharge Line Unloading or DLU. In the unloaded mode DLU compressors provide a continuous exhaust flow of air to atmosphere. This exhaust flow of air may be mistakenly diagnosed as air system leakage. Although this flow of air is normal, the concern can be minimized by installing an approved vent hose, or tube, to relocate or redirect the exhaust noise or by installing an approved silencer at the exhaust outlet of the component relieving the pressure.

Note that using a DLU purge valve in an air brake system that has a turbo charged air compressor inlet, will result in loss of turbo pressure out of the dryer thereby, reducing engine power.

Bendix Commercial Vehicle Systems LLC is aware of two common means of externally unloading the air compressor for air braked systems in use today, either through the air dryer or an external unloader valve.

The first method is using an air dryer with a discharge line unloading (DLU) style purge valve assembly to allow the compressor discharge air to be vented to atmosphere under the control of the normal air system governor. The partial system sketch below illustrates the charging, treatment, and storage portion of an air brake system utilizing the air dryer as the means of externally unloading the compressor. Note that most Bendix® air dryers typically include a turbo cut-off purge valve design. To use the air dryer in the manner illustrated, a DLU style purge valve is required.



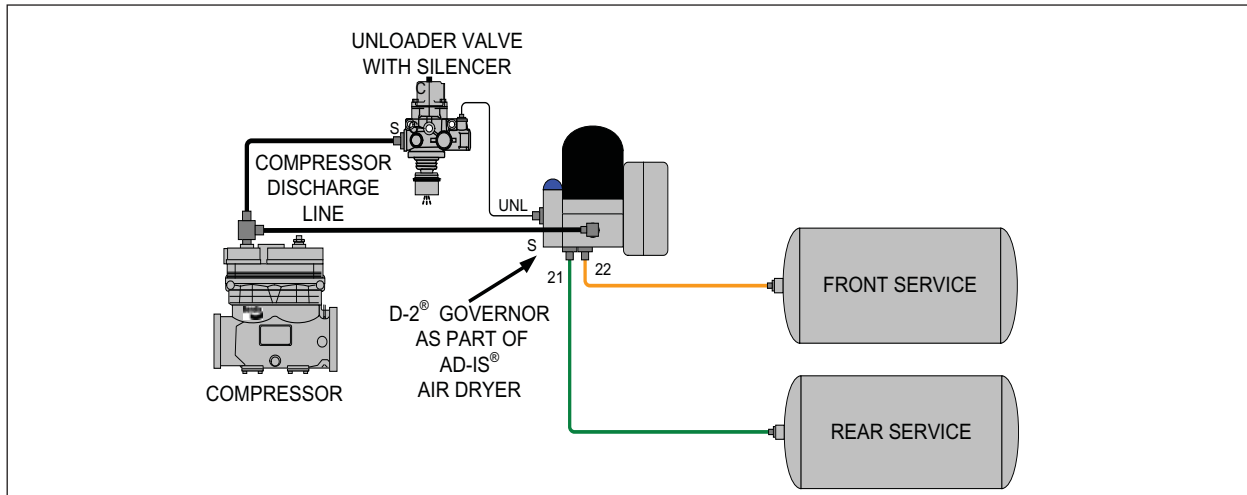
Discharge Line Unloading with Air Dryer and DLU Style Purge Valve

The Silencer Kit for use on AD-9®, AD-IP®, and AD-IS® air dryers is part number **5004224**.

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The second method of externally unloading the compressor is by using a separate DRO Unloader Valve. This valve is also normally controlled by the air system governor and may be installed in parallel or in series with the air dryer. The partial system sketch below illustrates the charging, treatment, and storage portion of the system utilizing a DRO unloader valve in parallel as the means of unloading the compressor in combination with the dryer.

Note the DRO valve can be used with any style Bendix® air dryer; however, the DRO valve will not prevent turbocharged air loss.



Discharge Line Unloading with DRO Unloader Valve

The Silencer Kit for use with the DRO Unloader Valve is part number **K029328**.